President : Then, we shall have non-official business tomorrow itself.

The Council rose for lunch at 12.10 and re-assembled at 2 P. M.

NEW MEMBER.

Dr. M. K. Gopala Pillai : (*Director of Public Health*) took the oath of office and then signed the rolls.

ADJOURNMENT MOTION RE: MALARIA IN CERTAIN PAKUTHIES BORDERING ON THE TRIVANDRUM TOWN.

Mr. V. Sankara Menon (*Trivandrum and Nedumangad cum Chirayinkil*) : Sir, I beg leave to move that the business of this House be adjourned for the purpose of discussing the following difinite matter of urgent public importance, namely,

> "For the last three months, in the pakuthies of Maranallur, Perumkadavila, Marukil, Ottasekharamangalam, Kunnathukal and Kattakada of the Neyyattinkara and Nedumangad taluks and also in the karas of Vilappil, Malayinkil, Parod and Karodu bordering on the Trivandrum Town itself, the epidemic of malaria is rampant and still raging with unabated fury causing death to hundreds of fellow-beings and resulting in complete devastation of several whole families. The epidemic is spreading in all directions and several persons have been fleeing from their houses to Trivandrum and other places to escape the fury of the fatal disease. Starvation, misery, and utter ruin face the already suffering people as after-effects of the ravage. The situation thus created deserves the serious notice of this House as well as of the Government."

The subject is one in which I feel so very strongly that I would crave the indulgence of the House if the language or the matter of my speech becomes either uninteresting or unpalatable. This peril of malaria began towards the end of 1109 and began to grow very serious in 1110 and 1111, so much so there was a very serious protest from all people concerned that immediate steps ought to be taken to prevent this ravage. Government also thought that it was high time, to take immediate relief measures to relieve the suffering of the people affected by that disease. Dispensaries were newly started and other measures also were adopted in several pakuthies and the matter reached such a climax that Government even thought it necessary as an urgent measure to depute a special staff of officers in connection with the work of relief. Certain new roads also were constructed in certain of those pakuthies and the people had temporary relief on account of the prompt action taken by the authorities concerned. The non-officials thought that it was high time for them also to do something in the matter.

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[Mr. V. Sankara Menon.]

They also started volunteers and committees and other institutions to contribute their share to relieve the suffering of the people concerned. Our beloved Maharaja had the kindness to bless the place with his Royal presence and it was a source of great comfort and gratification to the suffering people there that they had the unique fortune of getting the immediate blessing from their beloved Ruler. As an after-effect of that event, the officers also worked energetically to check the spreading peril and for one or two years it was almost hoped that measures will be taken to root out the evil but, unfortunately during the last two years the same thing has begun to grow and from the enquiries made by some right-minded people and from my own personal investigations I find that the death-rate has gone very high during the last year. An indication of the havoc caused by these terrible disease can be had on a reference to certain death-rates I have been able to collect from certain of the karas of Maranallur Pakuthy. In one of the karas affected by the disease that is in Kulaserikara, we find among a population of 685 persons, nearly 593 persons were affected by this disease, 93 died within the three months from the first of Kumbhom to the first of Edavom and 9 families have fled from that locality to escape the fury of that fell disease. In a neighbouring kara out of a total of 287 persons 276 are affected by this disease, forty died and four families have fled from that kara. In Kodumon kara and in two other neighbouring karas nearly 600 persons died and four or five families have fled from those karas. Also, the total estimate of the death-rate will show that nearly 2,000 persons have died in 1114 as a result of this disease and many persons have fled from their places to Trivandrum town itself and some of them are even being treated in the General Hospital here. This is about the actual state of conditions on account of the epidemic malaria.

Then, I must come to the after-effects of this terrible disease. From information collected I find that in certain parts people are nearly starving on account of the effects of this disease. They were poor people living upon tapioca and other small cultivations and when all the members of the family were stricken down with the disease there was nobody left to cultivate the means of their livelihood and actually people are starving. That is my information. It is therefore high time that measures similar to those adopted in 1111 and 1112 are taken immediately at least to give food to these people. So, my intention in moving this motion is just to bring to the notice of this House the immediate necessity of taking out certain measures to feed those people who are still remaining alive in those pakuthies after the attack of this disease. I would even suggest that a committee be formed with the Public Health Director

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and other persons who are naturally authorised to take measures for this purpose and with certain non-officials also to provide funds immediately for relieving the distress of the people.

I also take this opportunity to bring to the notice of this House that when whole places like the pakuthies I mentioned are stricken down with this disease, it is highly necessary for people in the sister taluks, who can do something to relieve the people, to come forward with all that is possible, and co-operate with Government in doing all that is possible to help those poor suffering people. From what I understand, there seems to be a proposal from the Public Health Department to open new dispensaries also in certain of the pakuthies. I would strongly say that the opening of dispensaries alone will not suffice to relieve the present conditions of the people. Along with the new dispensaries we should have some funds to feed the people who remain alive after the scourge. Some new roads also have to be constructed in those pakuthies to enable them to come to the dispensaries and take medicines and for other purposes. So, the immediate attention of the authorities concerned should be drawn to the necessity of opening certain new roads also in those localities, the opening of additional dispensaries and also the provision of funds to relieve the people who are semi-starved. With these remarks I commend the motion for the acceptance of the House.

Mr. Kochikkal P. Balakrishnan Tampi: Sir, I second the motion so ably moved by my friend, Mr. Sankara Menon. In doing so, I want to point out that the Government cannot launch on an ambitious scheme of feeding. I can understand the necessity of poor people being fed, but it must be done under great restriction because the dole system even as it worked in Great Britain proved rather futile in the end. If indiscriminately the people of an area are fed by Government, the natural tendency for them will be to look up to the Government for satisfying that very necessary human problem. Therefore, what I suggest is that the officials must be co-operating with the non-officials in the matter, and the heads of departments of certain so-to-speak social departments such as the Education Department and the Department of Co-operation, must co-operate with non-officials in the matter of feeding those people who are absolutely poor.

There is another matter in which I will have to amplify the remarks of my friend Mr. Menon, in so far as he has not included the whole area which is affected by malaria. Personally, I know that a pakuthy called Vellanad in Nedumangad taluk is also affected by malaria. A very beautiful spot, a spot which is considered to be very healthy, is now affected by malaria. Therefore, I am

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[Mr. Kochikkal P. Balakrishnan Tampi.]

one with Mr. Sankara Menon in believing that remedial measures must be taken ; but Government must take all precautions that the people of that area should not eternally look up to Government for feeding.

Another aspect of the matter is that the Trivandrum Municipality also should make a contribution towards this. It is a matter affecting the public health of Trivandrum. My friend was saying that near the subrubs of Trivandrum malaria is rampant and therefore it has come within the province of work of the city fathers of this town to make a contribution towards the fund to be raised for combating this disease.

With these remarks I second the motion moved by my friend Mr. Sankara Menon.

Mr. T. Krishna Pillai: (*Kalculam and Vilavancode* cum *Neyyattinkara*): Sir, I rise to support the motion. As was observed by the honourable member Mr. Balakrishnan Tampi, I too own a slight objection in respect of the motion. I have to observe that certain areas in my constituency which are completely under the grip of malaria epidemic have not been included in the adjournment motion.

Sir, malaria raged in Neyyattinkara in an epidemic form some four years back and due to the lethargy and indifference of Government in taking remedial measures at the outset, the disease spread with lightning rapidity to the neighbouring taluks of Vilavancode and Nedumangad. The virulence of the attack, the rapidity of infection and the high rate of mortality, necessitated the Government to take all possible remedial and relief measures, such as, the distribution of rice to the poor and the needy, opening of road to the inaccessible interior regions to facilitate easy access, as well as to offer remunerative work to the poor.

The magnitude of the suffering of the people as well as the loss of life was so great that His Highness the Maharaja and the members of the Royal family, notwithstanding the risks of visiting the malaria infected regions visited those parts. The Royal visit accentuated considerably the remedial and relief measures started by the Government. As a result of this awakened activities of the authorities concerned, and also due to the much longed for rains, setting in soon after the Royal visit, the epidemic showed some signs of abatement and the authorities without much ado stopped their activities fancying, evidently, that they have well-combated the disease and it was well-nigh eradicated. In the meantime, the disease spread with unabated vigour and virulence to every nook and cranny of Neyyattinkara and Nedumangad taluks. It is no

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exaggeration to say that 90 per cent. of the people in those parts became a prey to this fell malady. Sir, regarding remedial measures, from experience I can boldly say that the administering of quinine to the empty stomach and emaciated body, would be but hastening the patient's approach to the grave.

President : Has the hon'ble Member any other suggestion to make ?

Mr. T. Krishna Pillai : My suggestion is that the temporary relief measures adopted by Government in the years 1110 and 1111 may be resuscitated and worked out this time also. With regard to the distribution of rice, my friend Mr. Balakrishnan Tampi, pertinently remarked, that success in that venture could be gained only when the officials heartily co-operated with the non-officials. I am happy to inform the House in this connection that during the last epidemic when this experiment was tried, the officials of the locality, both the high and the low, co-operated actively and sincerely with the non-officials and the work was carried on in an eminently satisfactory manner. So my suggestion is that distribution of rice may be started with advantage at the present moment when thousands of those malaria-stricken patients are at the very jaws of death due to sheer hunger and utter poverty. P. W. D. works which were started during the last epidemic, and left half done may be resumed, and also new works may be started in order to give some remunerative labour to those poor people. The present situation, Sir, is undoubtedly, despite whatever figures or facts the official member may give forth to minimise the importance of the situation, so grave and alarming, that, I would urge the Government to take all possible remedial and relief measures without any more dragging on or delay. With these words, I strongly support the motion.

Mr. G. Narayana Aiyar : Sir, I also rise to support the motion. The fact that malaria has affected certain parts of our State cannot be disputed. Even in North Travancore, in my constituency, some parts are under the clutches of malaria epidemic. In granting relief measures, those parts may also be included. I appeal to Government and the Director of Public Health to suggest ways and means for completely eradicating the disease from our country.

Before closing, may I be permitted to make one request to you Sir. Some arrangement may kindly be made by you, Sir, to see that we, on this side of House, are enabled to hear the speeches of the members on the other side of the House. We do not hear any of the speeches of the honourable members on the opposite side of this House.

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Mr. Thomas Chandy Mukkadan (*Nominated*): സർ, ബഹുമാനപ്പെട്ട മെംബർ ഈ സഭ മുൻപാകെ അവതരിപ്പിച്ച ഗൌരവാവഹമായ ഈ പ്രമേയത്തെക്കുറിച്ച് പരിചിന്തിക്കുമ്പോൾ ഒരു സംഗതി ബഹുമാനപ്പെട്ട ഗവണ്മെൻറിനെ എനിക്ക് അനുസ്മരിപ്പിക്കുവാനുണ്ട്. ഇതിനുമുൻപ് ഈ സഭ കൂടിയിട്ടുള്ള സന്ദർഭങ്ങളിൽതന്നെ ഒന്നിലധികം പ്രാവശ്യം അടിയന്തിരപ്രമേയം കൊണ്ടുവരത്തക്കവണ്ണം അതി ഗൌരവമായ ഒരു സംഗതിയാണിതെന്നും അതിനെ ആസ്പദമാക്കി ഈ പ്രദേശങ്ങളിൽ മഹാരാജാവു തിരുമനസ്സുകൊണ്ടുതന്നെ എഴുന്നള്ളി കല്പിച്ച് വേണ്ടവ ചെയ്തെന്നും ഉള്ള വസ്തുതകൾ മുമ്പിൽ വെച്ചുകൊണ്ട്, മൂന്നാംപ്രാവശ്യവും ഇതുപോലെ ഒരു അടിയന്തിരപ്രമേയം അവതരിപ്പിക്കേണ്ടതാവശ്യം വരാതിരിക്കത്തക്കവണ്ണം എന്തെല്ലാം സംഗതികളാണ് ചെയ്യേണ്ടിയിരുന്നതെന്നു ചിന്തിക്കുമ്പോൾ ഒരു സംഗതി ഇവിടെ പ്രസ്താവിക്കേണ്ടതു വളരെ ആവശ്യമായി എനിക്കു തോന്നുന്നുണ്ട്. ജനങ്ങൾക്കു സുഖക്കേടു വന്നാൽ അതിൻെറ നിവാരണത്തിനു വേണ്ട ചികിത്സയും, ആഹാരസാധനങ്ങളും നൽകുന്നതോടുകൂടിത്തന്നെ ആ ദേശത്തിനും ഒരു ചികിത്സ ചെയ്യേണ്ടിയിരുന്നില്ലെ എന്നാണു ഞാൻ സംശയിക്കുന്നതു്. മലമ്പനി ബാധിതമായ പ്രദേശങ്ങൾക്കുള്ള ദൂഷ്യങ്ങളെ കണ്ടുപിടിച്ച് അവയെ പരിഹരിക്കുന്നതിനു ശരിയായ പ്രവൃത്തി ചെയ്തിരുന്നെങ്കിൽ നിശ്ചയമായും മലമ്പനിയുടെ കൂടുതലായ ആവർത്തിക്കലുണ്ടാകാതെ കഴിക്കാമായിരുന്നു. ഒരു ശരിയായ സർവെ ചെയ്ത് അവിടത്തെ സ്ഥിതിഗതികൾ നല്ലവണ്ണം മനസ്സിലാക്കി അതിനാവശ്യമായ പരിഷ്കാരങ്ങൾ ആ പ്രദേശങ്ങളെ സംബന്ധിച്ചിടത്തോളം നടപ്പിൽ വരുത്തണമെന്ന് പത്രപംക്തികളിൽനിന്നും കിട്ടുന്ന അറിവിനെവച്ചു നോക്കുമ്പോൾ എനിക്ക് ബഹുമാനപ്പെട്ട ഗവണ്മെൻറിനെ ഉൽബോധിപ്പിക്കേണ്ടതായിട്ടുണ്ട്. രാജ്യത്തിൻെറ നാനാഭാഗങ്ങളിലുംനിന്നു പിരിക്കുന്ന പണത്തിൽ ഒരുഭാഗം ഒരു സ്ഥലത്തെ ജനങ്ങൾക്കുമാത്രം ആഹാരം കൊടുക്കുന്നതിനായി ചെലവുചെയ്യുന്നതു ശരിയാണൊ എന്ന് ഇവിടെ ഒരു ബഹുമാനപ്പെട്ട മെംബർക്കു സംശയമുണ്ടായി. എന്നാൽ ഇങ്ങനെ ഈ ബാധ ആവർത്തിച്ചുകൊണ്ടിരിക്കയും അതു് മറ്റു പ്രദേശങ്ങളിലേക്കു വ്യാപിക്കയും ചെയ്യുന്നതു് ആലോചിക്കുമ്പോൾ ഇതിനെ രാജ്യത്തിൻെറ ഒരു പൊതു ആവശ്യമായി പരിഗണിച്ചു പ്രവൃത്തിക്കേണ്ടതാണെന്നു ബോദ്ധ്യപ്പെടുന്നുണ്ട്. ഇതിൽ ഒരുപക്ഷേ എന്തെങ്കിലും വൈഷമ്യങ്ങൾ വന്നാലും ഈ അടുത്തകാലത്തു് ആ പ്രദേശങ്ങളിലെ ജനങ്ങളിൽ

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പ്രത്യക്ഷപ്പെട്ട മാനസികരോഗത്തിന്റെ ശിക്ഷയെന്നോണം ഇപ്പോൾ ബുദ്ധിമുട്ടനുഭവിക്കുന്ന ജനങ്ങളിൽ അനുകമ്പ കാണിക്കുന്നതിന് ഇപ്രകാരത്തമായ ഈ അവസരത്തിൽ ബുദ്ധിപൂർവ്വം പ്രവൃത്തിക്കണമെന്നാണ് എനിക്കു പറയുവാനുള്ളത്. ഈ സന്ദർഭത്തിൽ അനുദ്യോഗസ്ഥന്മാരും ഈ രാജ്യത്തിന്റെ ഒരു പൊതുആവശ്യമായി വിചാരിച്ച് വേണ്ട സഹായസഹകരണങ്ങൾ ചെയ്യേണ്ടതാണ്. ബഹുമാനപ്പെട്ട മെംബർ പ്രസ്താവിച്ചത് ഗൗരവാവഹമായ ഒരു സംഗതിയാണെന്ന് ഞാൻ ദൂരസ്ഥനാണെങ്കിലും, പത്രങ്ങളിൽനിന്നും, ഇവിടെവന്ന് കേട്ടതിൽനിന്നും എനിക്കു മനസ്സിലാക്കാൻ കഴിഞ്ഞിട്ടുണ്ട്. ഇവിടെ ആഗതരായിരിക്കുന്ന മെംബർമാരുടേയും ഗവണ്മെൻറിന്റേയും സത്വരമായ ശ്രദ്ധ ഈ വിഷയത്തിൽ പതിക്കണമെന്നഭ്യർത്ഥിച്ചുകൊണ്ട് ഞാൻ ഈ പ്രമേയത്തെ അനുകൂലിച്ചുകൊള്ളുന്നു.

Dr. M. K. Gopala Pillai: Sir, malaria is a tropical disease that frequently breaks out in India and elsewhere. The statistics show that usually one hundred million people out of three hundred and fifty millions suffer from malaria in India every year and about five hundred thousand of them die of this disease. Coming to South India, it is prevalent in the foot-hills of the Western Ghats. Compared with certain other places in South India, malaria is not so severe in Travancore. It reached its peak during the recent Epidmic in Ceylon. In Travancore it raged in an epidemic form in the year 1110. In July and August of that year, the disease reached its climax. Effective methods were adopted by Government to combat it and the disease slowly subsided. Relief measures were adopted on an extensive scale. About 45 treatment centres were opened in the affected regions. A good number of Sanitary Inspectors and Vaccinators were deputed on special duty. Medicines were taken to the very homes of the suffering people. It was a matter for regret to hear an honourable member saying that Government did not bestow their attention at that time to combat the disease.

Mr. T. Krishna Pillai: What I said was that *in the beginning* the Government did not take effective steps to fight out the disease.

Dr. M. K. Gopala Pillai: During the recent malaria epidemic which prevailed not only in India but also in Ceylon, Siam, Burma, in certain Islands of the Pacific and the Indian Oceans the relief measures adopted by the Government of Travancore were much more efficient than any other Government had done. Gentlemen who visited Travancore on that occasion, *i. e.* members of the

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[Dr. M. K. Gopala Pillai.]

Rockefeller Foundation, have testified to the vigorous and effective measures taken by the Travancore Government to eradicate the evil.

Mr Kochikkal P. Balakrishnan Tampi : May I know the intensity of malaria that was raging at that time?

Dr. M. K. Gopala Pillai : There was variation in certain places.

Mr. Kochikkal P. Balakrishnan Tampi: May I know the exact figures on that matter.

Dr. M. K. Gopala Pillai : In certain places the spleen rate was between 80 and 90; in certain other places it was below 60 in the Trivandrum town it was only 5 per cent.

Mr. T. Krishna Pillai : May I know the agency employed by the Director of Public Health for the collection of this information?

Dr. M. K. Gopala Pillai : Eight Sanitary Inspectors have been appointed by the Medical Department and they are daily visiting all the karas and pakuthies and collecting statistics about malaria. At that time almost every pakuthi had malaria. An honourable member said that the Government relaxed their measures. On the other hand they have been good enough to establish more hospitals in different places in the affected area. There was a bi-weekly dispensary at Vidurai. It has been converted into a daily one. There is one at Aryanad, one at Kallikkad, and one at Kattakada. Recently Government have opened a dispensary at Vilappil. But people do not show any anxiety to take medicine and the daily attendance fell considerably low. The special malaria officer from Neyyattinkara used to send his assistant to the malaria affected districts and distribute quinine to such of the patients as cared to come. Besides, the dispensary at Kattakada, there are several dispensaries at Chempoor, Perumkadavila, Kunnathukal, Marayamuttam, Kottackal Arumana and Colasekharam. Some of these dispensaries were opened subsequent to the epidemic and I can assure the honourable members that Government have not shown any indifference or relaxed the vigorous measures they have already adopted. The difficulty is to make people take quinine, though the Sanitary Inspectors personally supply the medicine. Quinine mixture is taken in 5 lb. bottles and the Sanitary Inspectors go almost to every house and compelled the people to take quinine. Three or four days after they become better and then they refuse to continue the treatment. Now the headmasters of schools are supplied with quinine mixture and the boys and girls attending the schools are being daily given quinine.

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Mr. T. Krishna Pillai : May I know whether the people of the locality preferred the ayurvedic system of treatment rather than the allopathic system when the epidemic occurred there last time ?

Dr M. K Gopala Pillai : That is a very difficult question for me to answer.

President : Does the honourable member understand any of the ayurvedic system of treatment of malaria ?

Dr. M. K. Gopala Pillai : Sir, I do not know.

Mr. T. Krishna Pillai : May I know whether ayurvedic dispensaries were not opened in different places in Neyyattinkara when the epidemic broke out last time?

Dr. M. K. Gopala Pillai : I know ayurvedic dispensaries were opened but they were all complete failures.

Mr. Thomas Chandy Mukkadan : ആശുപത്രിസ്ഥാപനവും മരുന്നുവിതരണവുംകൂടാതെ ഇതിന്റെ നിവാരണത്തിനായി മറ്റു വല്ല മാർഗ്ഗങ്ങളും ചെയ്തിട്ടുണ്ടോ?

Dr. M. K. Gopala Pillai : Yes, I shall come to that presently.

Mr. Thomas Chandy Mukkadan : ഈ കൊല്ലം കഴിഞ്ഞ കൊല്ലത്തിലുണ്ടായിരുന്നതിനെക്കാൾ കൂടുതൽ സ്ഥലങ്ങളിൽ രോഗം വ്യാപിച്ചിട്ടുണ്ടോ?

Dr. M. K. Gopala Pillai : No. There is a slight increase now in all the affected areas. The usual incidence of malaria is between the months of Meenam and Karkatakam. Almost everywhere in places which are under the influence of the monsoon, it shows a rise between the months of Meenam and Karkatakam.

Mr. Thomas Chandy Mukkadan : മരണത്തിന്റെ എണ്ണത്തിൽ കഴിഞ്ഞ കൊല്ലങ്ങളെ അപേക്ഷിച്ച് വല്ല വ്യത്യാസവും ഈ കൊല്ലത്തിൽ ഉണ്ടായിട്ടുണ്ടോ?

Dr. M. K. Gopala Pillai : There is a slight increase in the death rate in certain areas where malaria usually prevailed for the last several years. This year malaria did not show such an acute rise. Just like other epidemic diseases ; small-pox, cholera nd plague, malaria shows a periodical rise between 10 and 15 years. This rise was witnessed in several places and local conditions are chiefly responsible for this rise.

In regard to feeding children in schools and also the distribution of doles, an attempt was made for the last 2 years even after the first epidemic subsided But the response from the people of

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[Dr. M. K. Gopala Pillai]

the locality was so very poor that it had to be discontinued. The Director of Public Instruction and myself visited certain areas with a view to pursuade the headmasters. Some of them did want to take up the responsibility because even vessels were not available at that time and for a few days they had to prepare the kanji themselves.

Mr.V. Sankara Menon : Was the response from the recipients lacking ?

Dr. M. K. Gopala Pillai : Should I say that ?

President : It is entirely open to the member to answer or not to answer or answer in any way he likes.

Dr. M. K. Gopala Pillai : To offer food is an attracting problem which nobody will refuse.

Mr. James Fletcher : The member was saying that there was some difficulty about vessels in Neyyattinkara.

Dr. M. K. Gopala Pillai : Not in Neyyattinkara. More than 15 edangalies of rice had to be boiled for use in schools and no proper vessels were available then.

President : Local response was not encouraging.

Dr. M. K. Gopala Pillai : No, Sir. As I said a little while ago, this disease has the characteristic feature of showing a rise between the months of Meenam and Karkatakam. Similary this year also it has shown this rise particularly in the areas where it has been endeuric. At present the Sanitary Inspectors are supplied with quinine and they are distributing it to almost all the houses. In this connection I may be permitted to inform the House that for malaria the only remedy is the administration of quinine and no other suitable drugs have yet been found out to cure malaria.

Mr. Kottur Kunjukrishna Pillai : May I know whether there was not an offer made by the department to find out a suitable remedy for malaria ?

Dr. M. K. Gopala Pillai : Yes, Sir.

Mr. Kottur Kunjukrishna Pillai : May I know what the result is ?

Dr. M. K. Gopala Pillai : The Medical Department offered Rs. 1,000 to anyone who could find a suitable medicine for the cure of malaria and nobody has yet come forward. That is the result.

Mr. V. Sankara Menon : Is it a fact that this disease has got a peculiarity that persons once attacked will be attacked again ?

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Dr. M. K. Gopala Pillai: That is not correct. People who get the disease happen to live in certain areas where there may be mosquitoes. They may be cured of malaria by taking quinine. After a few months or days they are reinfected by the bite of the mosquitoes and so the infection is kept regulary for years. They are infected again and again.

Mr. V. Sankara Menon: Is it a fact that the department has not found out a radical cure for this disease as yet?

Dr. M. K. Gopala Pillai: I shall come to that presently. Not only the honourable member but many others are asking whether suitable measures have been found out to cure the disease radically. With a view to find out radical measures, Government have investigated the problem and certain investigation centres were opened; one at Kulasekharam and the other at Perumpazhuthoor. This was done during the period between the outbreak of the last epidemic and the present one. Valuable findings were elicited and Government have been pleased to appoint a senior medical officer as a Special Malaria Officer. He was sent to various parts of India for an intensive training in malaria control. As a result of the investigation it is seen that certain mosquitoes breed in swampy areas and certain others in running water. The Vector that causes malaria in Kulasekharam is not the same species that carries infection in Neyyattinkara. Certain species live in swampy areas and others on the sides of streams. The magnitude of the problem is such that unless the non-officials co-operate with the Government, no Government can eradicate the disease. I use the word 'eradicate' because honourable members used that expression. There may be swampy areas near the homes and the mosquitoes may breed even in cocoanut husks which are carelessly thrown about the houses. So it is now thought that it is more a social problem—by social problem I mean non-Governmental problem—and help and response from the public of the affected regions are necessary. The swampy areas have to be removed.

Mr. Thomas Chandy Mukkadan: രോഗബാധിതമായ സ്ഥലങ്ങളിൽ എവിടെയെങ്കിലും പരിശോധകന്മാർ ചെന്നെത്താത്ത സ്ഥലങ്ങളുണ്ടോ?

Dr. M. K. Gopala Pillai: ഇല്ല.

A malarial survey has been conducted in Travancore from 1106 and it was completed only lately. It was as a result of this investigation that Government appointed a special officer to be trained in Malariology and he is now in Ceylon. After his return

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Mr. Thomas Chandy Mukkadan : ഈ സ്ഥലങ്ങളിൽ ഏതെങ്കിലും ഒരു വിഭാഗത്തിൽ പരിശോധകർ എത്താത്ത സ്ഥലങ്ങളും ഉണ്ടോ എന്നാണു ചോദിച്ചതു്.

Dr. M. K. Gopala Pillai : ഇല്ല.

So, what I request in this connection is the unstinted support of the public and if they will keep their houses in order I can assure the honourable members that we shall be able to eradicate malaria from the affected regions.

Coming again to the present epidemic, I may inform the honourable members that it is well under control. It has never shown its former virulence.

Mr. K. M. Kesavan : Will the honourable member enlighten the House on virulence of the present attack by quoting facts and figures ?

Dr. M. K. Gopala Pillai : Sir, I do not know whether I shall have to contradict myself, because last year the figures up to 1st of Mithunam showed that the cases were 37,518. Up to the 1st Mithunom this year it is only 33,053. In certain pakuthies it shows a little rise; on the other hand, in some other pakuthies, it shows a decrease. The total is a general decrease. Sir, I do not want to minimise the importance of the adjournment motion and my figures are against it. The honourable member for Vilavancode said that that taluk was not included in these areas. In fact figures from Arumana and Kulasekharam show that there is no epidemic in Vilavancode at present. Malaria has been enpemic there for several years. And in certain places in Nedumangad.

Mr. T. Krishna Pillai : May I correct the honourable member that the information is wrong. I have got information in the other way.

Dr. M. K. Gopala Pillai : Sir, malaria has been endemic in Arumana, Kulasekharam and Vilavancode and the figures show no increase at all. Sir, I am glad to inform the honourable members that even though malaria has not reached that peak of 1110, Government have been gracious enough to establish two more hospitals, one at Maranallur pakuthi and the other at Vellanad. Practically for every four or five miles from Vidura to Kulasekharam there is now a hospital and the Sanitary Inspectors do every thing possible to see that the epidemic does not spread. Headmasters in those areas are supplied with quinine. The Anchal Masters are also supplied with tha same medicine and in certain places the leading men of the locality are supplied with quinine. It is proposed to take suitable measures to control the epidemic and in this I solicit the help of the honourable members.

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Mr. T. Krishna Pillai: May I know the attitude of the Government with respect to the relief suggested by the honourable members ? During the last epidemic there was distribution of rice and such other things. What is the attitude of Government in regard to such relief ?

Dr. M. K. Gopala Pillai: During the last epidemic extensive relief measures were undertaken such as construction of roads, distribution of rice etc. and if there is any need for that now I don't think Government will hesitate to do what is required in the matter.

Mr. T Krishna Pillai: May I know from the honourable member whether representations from members are not sufficient to bring home to the Government the seriousness of the situation ?

Dr. M. K. Gopala Pillai: Sir, myself and the Director of Public Instruction toured round the area and found that at present the measures adopted were adequate. But whenever the situation becomes serious, I am sure that the authorities will make proper recommendations to the Government in order to help the suffering people in time.

Mr. V. Sankara Menon: Can the honourable member reply what the death rate has been for the last month for the Neyyattinkara taluk ?

Dr. M. K. Gopala Pillai: Sir, the death rate is rather high. The difficulty is that we do not know the number of deaths due to malaria alone. The Proverthicars who register the deaths do not differentiate the deaths occurring on account of malaria and those occurring on account of other causes. But there is a slight rise in the death rate of malarial persons. There is certainly a rise.....

Mr. N. Krishna Iyer (*Vaikom, Kottayam and Changanacherry* cum *Peermade*): May I know from the member whether he is aware that malaria is raging in Peermade taluk in almost every year ?

Dr. M. K. Gopala Pillai: In certain endemic areas of Peermade taluk, malaria is prevalent; particularly in Kumili and other places like Vandiperiyar stretching along the foot of the hills.

With regard to the anxiety evinced by certain members that Trivandrum is so very near certain affected areas, I may inform the honourable members that a survey conducted in many schools on the outskirts of Trivandrum town does not warrant any such anxiety. There is no sign of malaria here. We went to Karamana and to some schools in Poojapura and also as far as Kundankadavu bridge. We also conducted a survey with one of the representatives of the Rocke feller Foundation who is a malaria specialist and we found

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[Dr. M. K. Gopala Pillai]

that the anxiety was baseless with regard to the future invasion of malaria into Trivandrum. It did not at all show that there was any appreciable increase of Malaria in Trivandrum. But there are some affected places in Trivandrum taluk, for example, Malayinkil. When he went and asked the people of the locality, they told us that they were getting medicines from Fort Hospital. They did not think of getting medicines from nearby hospitals as they thought that better medicine was available in the Fort Hospital. Most of them come to Chalai to sell their garden produce and it is easy for them to go to Fort Hospital and get the medicine. Some people come and stay here with their families. Many pregnant women from places affected by malaria attend the Women and Childrens' Hospital. All these cases of malaria noted in the town are not indigenous but they are imported from outside. We are going to have investigation centres in the town very shortly and a malarial survey will be soon conducted in the town itself. In the affected regions of Neyyattinkara we have lately introduced a variety of fish called *Gambusia* which destroys the malarial larvae. In many wells in Neyyattinkara these fishes are reared. We have two or three tanks serving as hatcheries for these fishes imported from Bangalore. They have quickly multiplied and our idea is to put these fishes in almost every well in the Neyyattinkara town.

Mr. N. Krishna Iyer : Will the honourable member assure us that Government will extend the relief measures to Peermade also?

Dr. M. K Gopala Pillai : Sir, it will soon be taken up.

Mr. V. Sankara Menon : May I know whether malaria is in the form of an epidemic in Peermade?

Dr. M. K Gopala Pillai : Sir, malaria is endemic there and reaches epidemic proportions during the month of Meenom.

President : Is it not in the foot hills in India that malaria is prevalent?

Dr. M. K. Gopala Pillai: Yes; both in the west coast and in the east coast.

President : Is not the place called Terrah highly malarial?

Dr. M. K. Gopala Pillai : Sir, that place is highly malarial. It is proposed to control the epidemic by adopting suitable measures immediately and with the return of the senior Medical Officer these measures will be put into operation.

Mr. Thomas Chandy Mukkadan : കുന്നിന്മേ കൊട്ടക്കാടുകൊണ്ടു മറച്ചു വല്ല രോഗങ്ങൾക്കും കാരണമാകുമോ?

Dr. M. K. Gopala Pillai : ഇല്ല.

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Government have already sanctioned the adoption of control measures in the epidemic areas and the general scheme will shortly be submitted to Government and it will be put into operation very soon. I can assure the honourable members that again we shall go round the area where there is spread of the scourge. If it has reached the proportion of an epidemic we shall make suitable recommendations to Government for further relief measures.

Mr. V. Sankara Menon : Sir, I am glad to observe from the remarks of the honourable member on the other side, that Government also agree that relief measures ought to be taken immediately with the co-operation of the non-official members. In that respect, there is a united request and as such it is to be hoped that relief measures will be taken immediately. I also understand that it is admitted that there is a rise in the death rate in the malaria-affected areas; still it is to be considered only as not a very serious condition ; that is what I gather from the speech of the Director of Public Health. I do not know if the death rate is higher ; what else does it indicate ?

Whatever it be, my suggestion is that relief measures should be taken on hand not only for the curing of the disease but also for saving patients from actual starvation as the after-effects of the disease. I would urge upon the Government and the members of this House on the extreme necessity for immediate action.

On the assurance by Government that measures will be taken immediately I withdraw the motion.

President : Before I ask for the decision of the House on the question of leave being granted for the withdrawal of this motion, I think, having regard to the importance of this matter, I may add a few words. I was very glad to see from what fell from very many honourable members, that they have realised the paramount importance, in this matter, of co-operation between officials and non-officials. It is worthy of note that, in certain countries, scourges like malaria and yellow fever have been dealt with, by means of such co-operation, so effectively that the eradication, of which some honourable members spoke, has been actually effected. One of the very great things which Sgr. Mussolini has been able to achieve is the practically complete eradication of malaria in perhaps one of the most malarial regions in the whole world, *viz*, the Campagna not many miles from Rome. Some historians have come to the conclusion that the fall of the Roman Empire was due to the increase of malaria. Due to systematic co-operation—some people have called it enforced co-operation—between officials and non-officials, by wide-spread treatment, by compulsion, legal and

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[President.]

moral compulsion, on the part of the State with reference to the owners of tanks and swamps and pits, the carriers of malaria were completely got rid of in that part of the world ; and that part of the country has not only been rendered absolutely free from malaria, but it is now one of the sanatoria of Rome, so much so, rows and rows and rows of model dwellings have now been built in the Campagna.

It is equally well known that, by means of similar co-operation of the people, the Government of the United States have been able to get rid of malaria and yellow fever in the Panama region which was full of disease during the days of the construction of the great Panama Canal. The scourge was effectively dealt with by the Government of the United States, mainly on account of the co-operation of the people there.

Now, Government are fully alive to the value of such co-operation, and it is their desire now to make a fervent appeal for such co-operation.

I can claim to speak with some knowledge of the facts as I happened to be one of the members of the Committee, of the League of Nations, which dealt with the question of epidemiology both in the far east and in the near east—and in that connection, I had to study a great deal of literature on this question of malaria. I came to the conclusion fortified by my study that this scourge cannot be dealt with unless people co-operate. In what way? The Scout Movement and similar organisation can be utilised, and the boys might be made to see that swamps near homes are filled up, and cocoanut shells, which form very convenient little reservoirs of stagnant water for the carriers of malaria are removed or buried well under the surface of the earth. There are many other ways in which school children can free their neighbourhood from malaria.

Having regard to the paramount importance of this problem, Government have deputed a Special Officer for the purpose of travelling round and finding out the methods employed elsewhere. The special officer is now in Ceylon studying the whole problem there and he will come here very shortly. The Rockefeller Foundation has done splendid work all over the world in fighting this disease, and they have concentrated on Ceylon and certain other places. This problem is very acute in Ceylon, and in certain parts of Assam and Bengal. Practically the whole of Bengal is under the grip of malaria ; There is no doubt that this problem cannot be dealt with except with the co-operation of the people especially in the matter

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of eradicating the carriers of malaria. As I said, it is in that matter, that Government would confidently hope that the people would co-operate with them. The Government are also taking steps to introduce fish into ponds and wells which will devour the larvae of the carriers.

Something was said about relief measures to prevent starvation of patients. As Dr. Gopala Pillai has rightly assured the House, whenever there is a critical situation, Government will certainly not lag behind in grappling with the problem.

I have been mentioning all these solely with a view to appeal to the people to consult the Sanitary Department, the Medical Department and the Public Health Department whenever necessary and to work together with the Government and their officers in eradicating this scourge.

The question that leave be granted for the motion being withdrawn was put to vote and carried.

The motion was, by leave, withdrawn.

The Council adjourned at 3·8 P. M.

Trivandrum,
1939.

A. GUNAMONY,
Secretary to the Sri Chitra State Council.

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